National Mission for Sustainable Agriculture (NMSA)

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Why in News?

The Government of India has set an ambitious target of bringing 100 lakh hectares under micro-irrigation over the five-year period from 2025-26 to 2029-30 under the National Mission for Sustainable Agriculture (NMSA).

About NMSA

- **Origin -** Launched in 2014-15 as one of the eight missions under the National Action Plan on Climate Change (NAPCC).
- **Objective -** To transform agriculture into a climate-resilient production system through strategic interventions in soil health, water use efficiency, and integrated farming.
- **Administrative Shift -** Since 2022-23, NMSA has been subsumed under the umbrella of Pradhan Mantri Rashtriya Krishi Vikas Yojana (PM-RKVY).
- **Nodal Ministry -** Ministry of Agriculture and Farmers Welfare.

Key Components & Interventions

Rain fed Area Development (RAD)

- Focuses on Integrated Farming Systems (IFS) to enhance productivity and minimize risks from climatic variability.
- Promotes a multi-cropping system involving crops, livestock, fishery, and agro-forestry.

Per Drop More Crop (PDMC)

- Aims to maximize water use efficiency at the farm level through Micro-Irrigation technologies (Drip and Sprinkler systems).
- **Target:** 100 lakh hectares by 2029.

Soil Health Management (SHM)

- Focuses on the sustainable use of fertilizers through the Soil Health Card (SHC) Scheme.
- Aims to maintain soil fertility and enhance nutrient uptake by mapping soil-specific nutrient deficiencies.

CCSAMMN

- **Full Form -**Climate Change and Sustainable Agriculture: Monitoring, Modeling, and Networking.
- Provides a platform for the bidirectional flow of information between scientific establishments

and farmers regarding climate-smart practices.

Significance of the 100 Lakh Hectare Target

- **Water Conservation -** Reduces water wastage in a country where agriculture accounts for over 80% of freshwater usage.
- **Input Cost Reduction -** Micro-irrigation reduces the requirement for fertilizers (through fertigation) and electricity.
- **Climate Resilience -** Directly aligns with India's Nationally Determined Contributions (NDCs) to adapt to climate change and ensure food security.

For Reference : Republic World